IN THE CLAIMS:

The following listing of claims will replace all prior versions, and listings, of claims in the application.

1. (Currently Amended) A portable computer system, comprising:

a bus bridge;

a bus coupled to the bus bridge;

one or more devices coupled to the bus;

a docking interface coupled to the bus, wherein the docking interface includes a bus switch for coupling the bus to a peripheral interface in a docking station; and

a docking connector coupled to the docking interface;

wherein the docking connector is configured for docking the portable computer system to a docking station, and wherein the bus switch is configured to electrically couple the bus to the peripheral interface in the docking station responsive to said docking, and wherein the bus switch is closed during a predetermined turnaround cycle without suspending operations on the bus; and

wherein the predetermined turnaround cycle is initiated by asserting a command.

2. (Original) The computer system as recited in claim 1, wherein the bus is a low pin count (LPC) bus.

3. (Original) The computer system as recited in claim 1, wherein the bus switch is a low on-resistance bi-directional switch.

4. (Original) The computer system as recited in claim 1, wherein the computer system is configured to drive a clock signal to the peripheral interface in the docking station.

5. (Original) The computer system as recited in claim 1, wherein the docking interface includes a translation circuit, wherein the translation circuit is configured to receive commands from the bus.

6. (Original) The computer system as recited in claim 5, wherein the translation circuit is configured to translate commands received from the bus in order to operate the bus switch.

7. (Original) The computer system as recited in claim 6, wherein the commands are write commands.

8. (Original) The computer system as recited in claim 1, wherein the docking interface is configured to receive a dock detect signal, and wherein the dock detect signal, when asserted, indicates that the computer is coupled to the docking station.

9. (Original) The computer system as recited in claim 8, wherein a transition of the dock detect signal from an asserted state to a de-asserted state indicates that the computer has been undocked from the docking station.

10. (Original) The computer system as recited in claim 8, wherein a transition of the dock detect signal from a de-asserted state to an asserted state indicates that said docking has occurred.

11. (Original) The computer system as recited in claim 1, wherein the portable computer is configured to initiate a power-up sequence in the docking station responsive to said docking.

12. (Original) The computer system as recited in claim 1, wherein the computer system is configured to initiate a power-down sequence in the docking station prior to un-docking the computer system.

13. (Currently Amended) A method for hot docking a portable computer system to a docking station, the method comprising:

physically coupling the portable computer to a docking station, wherein the portable computer includes:

a bus bridge;

a bus coupled to the bus bridge;

one or more devices coupled to the bus; and

a docking interface coupled to the bus, wherein the docking interface includes a bus switch for coupling the bus to a peripheral interface in a docking station;

asserting a dock detect signal in response to said physically coupling the portable computer to the docking station, wherein the dock detect signal is received by the docking interface; and

electrically coupling the bus to the peripheral interface in the docking station, wherein said coupling comprises:

closing the bus switch during a predetermined turnaround cycle~~,~~; and

initiating the predetermined turnaround cycle by asserting a command; ~~and~~

wherein operations on the bus are not suspended during said docking; and

wherein said asserting the dock detect signal is performed by one of:

the portable computer; and

the docking station.

14. (Original) The method as recited in claim 13, wherein the bus is a low pin count (LPC) bus.

15. (Original) The method as recited in claim 13, wherein the bus switch is a low on-resistance bi-directional switch.

16. (Original) The method as recited in claim 13 further comprising driving a clock signal to the docking station responsive to said hot docking.

17. (Original) The method as recited in claim 13 further comprising initiating a power-up sequence in the docking station responsive to said hot-docking.

18. (Original) The method as recited in claim 13, wherein said asserting the dock detect signal is indicative of said physical coupling.

19. (Original) The method as recited in claim 13, wherein the docking interface includes a translation circuit, wherein the translation circuit is configured to translate commands received from the bus bridge in order to operate the bus switch.

20. (Original) The method as recited in claim 19, wherein the commands are write commands.

21. (Currently Amended) A docking interface chip configured for use in a portable computer, the portable computer configured for docking to a docking station, the docking interface chip comprising:

a bus switch, wherein the bus switch is configured to, when closed couple a bus in a portable computer system to a switched bus in a docking station; and

a switch control circuit coupled to the bus switch;

wherein the switch control circuit is configured to close the switch responsive to a docking of the portable computer to the docking station and during a predetermined turnaround cycle, and wherein the switch control circuit is configured without suspending operations on the bus; and

wherein the predetermined turnaround cycle is initiated by asserting a command.

22. (Original) The docking interface chip as recited in claim 21, wherein the bus is a low pin count (LPC) bus.

23. (Original) The docking interface chip as recited in claim 21, wherein the docking interface chip is configured to receive a dock detect signal, wherein the dock detect signal is asserted responsive to docking the portable computer to the docking station.

24. (Original) The docking interface chip as recited in claim 23, wherein a de-assertion of the dock detect signal indicates that the portable computer has be undocked from the docking station.

25. (Original) The docking interface chip as recited in claim 21, wherein the switch control circuit includes a translation circuit, wherein the translation circuit is configured to receive commands from the bus.

26. (Original) The docking interface chip as recited in claim 25, wherein the switch control circuit is configured to operate the bus switch responsive to the translation circuit receiving commands from the bus.

27. (Original) The docking interface chip as recited in claim 26, wherein the commands are write commands.

28. (Original) The docking interface chip as recited in claim 21, wherein the bus switch is a low on-resistance bi-directional switch.

29. (Currently Amended) A system comprising:

a portable computer, wherein the portable computer includes:

a bus bridge;

a bus coupled to the bus bridge;

one or more devices coupled to the bus;

a docking interface coupled to the bus, wherein the docking interface includes a bus switch; and

a docking connector electrically coupled to the docking interface;

a docking station, wherein the docking station includes:

a complementary connector, wherein the complementary connector is configured to be coupled to the docking connector;

a peripheral interface chip, wherein the peripheral interface chip is configured to be coupled to the bus through the complementary connector, the docking connector, and the bus switch;

wherein the portable computer is configured to be coupled to the docking station by coupling the docking connector to the complementary connector, wherein the bus switch is configured to close and electrically couple the bus to the peripheral interface responsive to coupling the portable computer to the docking station, wherein the switch is closed during a predetermined turnaround cycle without suspending operations on the bus; and

wherein the predetermined turnaround cycle is initiated by asserting a command.

30. (Original) The system as recited in claim 29, wherein the bus is a low pin count (LPC) bus.

31. (Original) The system as recited in claim 29, wherein the docking interface chip is configured to receive a dock detect signal, wherein the dock detect signal is asserted responsive to coupling the docking connector to the complementary connector.

32. (Original) The system as recited in claim 31, wherein the dock detect signal is de-asserted responsive to uncoupling the portable computer from the docking station.

33. (Original) The system as recited in claim 31, wherein the docking interface includes a switch control circuit, wherein the switch control circuit is configured to operate the bus switch.

34. (Original) The system as recited in claim 33, wherein the switch control circuit includes a translation circuit, wherein the translation circuit is configured to receive and translate commands for operating the bus switch.

35. (Original) The system as recited in claim 29, wherein the bus switch is a low on-resistance bi-directional switch.

36. (Original) The system as recited in claim 29, wherein a power-up sequence is initiated in the docking station responsive to coupling the portable computer to the docking station.

37. (Original) The system as recited in claim 29, wherein the portable computer includes a clock driver chip, wherein the clock driver chip includes a plurality of outputs for driving clock signals.

38. (Original) The system as recited in claim 37, wherein the clock driver chip is configured to drive a clock signal to the docking station responsive to coupling the portable computer to the docking station.

39. (Original) A docking interface chip configured for use in a portable computer, the portable computer configured for docking to a docking station, the docking interface chip comprising:

a bus switch, wherein the bus switch is configured to couple a low pin count (LPC) bus in the portable computer to a peripheral interface in the docking station; and

a switch control circuit, wherein the switch control circuit includes a register, and wherein the bus switch is closed responsive to a command written to the register, wherein closing the switch includes initiating a first turnaround cycle, asserting the command, initiating a second turnaround cycle, and de-asserting the command, wherein the switch is closed simultaneously with said initiating the second turnaround cycle.

40. (Original) The docking interface chip as recited in claim 39, wherein the first turnaround cycle comprises a bus bridge granting control of the LPC bus to the switch control circuit.

41. (Original) The docking interface chip as recited in claim 40, wherein the second turnaround cycle comprises the bus bridge regaining control of the LPC bus.

42. (Cancelled)

43. (Currently Amended) The portable computer system of claim 1,~~42,~~ wherein asserting a command comprises asserting a command to a register.

44. (Previously Presented) The portable computer system of claim 43, wherein the register is a translation circuit.

45. (Currently Amended) The portable computer system of claim 1, ~~42,~~ wherein the command includes a write cycle.

46. (Currently Amended) The portable computer system of claim 1,

wherein closing the bus switch during ~~a~~ the predetermined turnaround cycle comprises initiating a first turnaround cycle, asserting ~~a~~ the command, initiating a second turnaround cycle, and de-asserting the command, wherein the bus switch is closed simultaneously with the initiating the second turnaround cycle.

47. (Cancelled)

48. (Currently Amended) The method of claim 13,

wherein closing the bus switch during ~~a~~ the predetermined turnaround cycle comprises:

initiating a first turnaround cycle;

asserting ~~a~~ the command;

initiating a second turnaround cycle; and

de-asserting the command, wherein the bus switch is closed simultaneously with the initiating the second turnaround cycle.

49. (Currently Amended) The method of claim 48, wherein asserting ~~a~~ the command comprises asserting ~~a~~ the command to a register.

50. (Previously Presented) The method of claim 49, wherein the register is a translation circuit.

51. (Previously Presented) The method of claim 48, wherein the command includes a write cycle.

52. (Cancelled)

53. (Currently Amended) The docking interface chip of claim 21, wherein closing the bus switch during ~~a~~ the predetermined turnaround cycle comprises initiating a first turnaround cycle, asserting ~~a~~ the command, initiating a second turnaround cycle, and de-asserting the command, wherein the bus switch is closed simultaneously with the initiating the second turnaround cycle.

54. (Cancelled)

55. (Currently Amended) The system of claim ~~54~~ 29, wherein asserting ~~a~~ the command comprises asserting ~~a~~ the command to a register.

56. (Currently Amended) The system of claim ~~54~~ 29, wherein the command includes a write cycle.

57. (Previously Presented) The system of claim 55, wherein the register is a translation circuit.

58. (Currently Amended) The system of claim 29,

wherein closing the bus switch during ~~a~~ the predetermined turnaround cycle comprises initiating a first turnaround cycle, asserting ~~a~~ the command, initiating a second turnaround cycle, and de-asserting the command, wherein the bus switch is closed simultaneously with the initiating the second turnaround cycle.

59. (New) A portable computer system comprising:

a bus bridge;

a bus coupled to the bus bridge;

one or more devices coupled to the bus;

a docking interface coupled to the bus, wherein the docking interface includes a bus switch for coupling the bus to a peripheral interface in a docking station; and

a docking connector coupled to the docking interface;

wherein the docking connector is configured for docking the portable computer system to a docking station, and wherein the bus switch is configured to electrically couple the bus to the peripheral interface in the docking station responsive to said docking, and wherein the bus switch is closed during a predetermined turnaround cycle without suspending operations on the bus; and

wherein closing the bus switch during ~~a~~ the predetermined turnaround cycle comprises initiating a first turnaround cycle, asserting a command, initiating a second turnaround cycle, and de-asserting the command, wherein the bus switch is closed simultaneously with the initiating the second turnaround cycle.

60. (New) The computer system as recited in claim 59, wherein the bus is a low pin count (LPC) bus.

61. (New) The computer system as recited in claim 59, wherein the bus switch is a low on-resistance bi-directional switch.

62. (New) The computer system as recited in claim 59, wherein the computer system is configured to drive a clock signal to the peripheral interface in the docking station.

63. (New) The computer system as recited in claim 59, wherein the docking interface includes a translation circuit, wherein the translation circuit is configured to receive commands from the bus.

64. (New) The computer system as recited in claim 63, wherein the translation circuit is configured to translate commands received from the bus in order to operate the bus switch.

65. (New) The computer system as recited in claim 64, wherein the commands are write commands.

66. (New) The computer system as recited in claim 59, wherein the docking interface is configured to receive a dock detect signal, and wherein the dock detect signal, when asserted, indicates that the computer is coupled to the docking station.

67. (New) The computer system as recited in claim 66, wherein a transition of the dock detect signal from an asserted state to a de-asserted state indicates that the computer has been undocked from the docking station.

68. (New) The computer system as recited in claim 66, wherein a transition of the dock detect signal from a de-asserted state to an asserted state indicates that said docking has occurred.

69. (New) The computer system as recited in claim 59, wherein the portable computer is configured to initiate a power-up sequence in the docking station responsive to said docking.

70. (New) The computer system as recited in claim 59, wherein the computer system is configured to initiate a power-down sequence in the docking station prior to un-docking the computer system.

71. (New) A method for hot docking a portable computer system to a docking station, the method comprising:

physically coupling the portable computer to a docking station, wherein the portable computer includes:

a bus bridge;

a bus coupled to the bus bridge;

one or more devices coupled to the bus; and

a docking interface coupled to the bus, wherein the docking interface includes a bus switch for coupling the bus to a peripheral interface in a docking station;

asserting a dock detect signal, wherein the dock detect signal is received by the docking interface; and

electrically coupling the bus to the peripheral interface in the docking station, wherein said coupling comprises closing the bus switch during a predetermined turnaround cycle, and wherein operations on the bus are not suspended during said docking;

wherein closing the bus switch during the predetermined turnaround cycle comprises:

initiating a first turnaround cycle;

asserting a command;

initiating a second turnaround cycle; and

de-asserting the command, wherein the bus switch is closed simultaneously with the initiating the second turnaround cycle; and

wherein said asserting the dock detect signal is performed by one of:

the portable computer; and

the docking station.

72. (New) The method as recited in claim 71, wherein the bus is a low pin count (LPC) bus.

73. (New) The method as recited in claim 71, wherein the bus switch is a low on-resistance bi-directional switch.

74. (New) The method as recited in claim 71, further comprising driving a clock signal to the docking station responsive to said hot docking.

75. (New) The method as recited in claim 71, further comprising initiating a power-up sequence in the docking station responsive to said hot-docking.

76. (New) The method as recited in claim 71, wherein said asserting the dock detect signal is indicative of said physical coupling.

77. (New) The method as recited in claim 71, wherein the docking interface includes a translation circuit, wherein the translation circuit is configured to translate commands received from the bus bridge in order to operate the bus switch.

78. (New) The method as recited in claim 77, wherein the commands are write commands.

79. (New) A docking interface chip configured for use in a portable computer, the portable computer configured for docking to a docking station, the docking interface chip comprising:

a bus switch, wherein the bus switch is configured to, when closed couple a bus in a portable computer system to a switched bus in a docking station; and

a switch control circuit coupled to the bus switch;

wherein the switch control circuit is configured to close the switch responsive to a docking of the portable computer to the docking station and during a predetermined turnaround cycle, and wherein the switch control circuit is configured without suspending operations on the bus; and

wherein closing the bus switch during the predetermined turnaround cycle comprises initiating a first turnaround cycle, asserting a command, initiating a second turnaround cycle, and de-asserting the command, wherein the bus switch is closed simultaneously with the initiating the second turnaround cycle.

80. (New) The docking interface chip as recited in claim 79, wherein the bus is a low pin count (LPC) bus.

81. (New) The docking interface chip as recited in claim 79, wherein the docking interface chip is configured to receive a dock detect signal, wherein the dock detect signal is asserted responsive to docking the portable computer to the docking station.

82. (New) The docking interface chip as recited in claim 81, wherein a de-assertion of the dock detect signal indicates that the portable computer has be undocked from the docking station.

83. (New) The docking interface chip as recited in claim 79, wherein the switch control circuit includes a translation circuit, wherein the translation circuit is configured to receive commands from the bus.

84. (New) The docking interface chip as recited in claim 83, wherein the switch control circuit is configured to operate the bus switch responsive to the translation circuit receiving commands from the bus.

85. (New) The docking interface chip as recited in claim 84, wherein the commands are write commands.

86. (New) The docking interface chip as recited in claim 79, wherein the bus switch is a low on-resistance bi-directional switch.

87. (New) A system comprising:

a portable computer, wherein the portable computer includes:

a bus bridge;

a bus coupled to the bus bridge;

one or more devices coupled to the bus;

a docking interface coupled to the bus, wherein the docking interface includes a bus switch; and

a docking connector electrically coupled to the docking interface;

a docking station, wherein the docking station includes:

a complementary connector, wherein the complementary connector is configured to be coupled to the docking connector;

a peripheral interface chip, wherein the peripheral interface chip is configured to be coupled to the bus through the complementary connector, the docking connector, and the bus switch;

wherein the portable computer is configured to be coupled to the docking station by coupling the docking connector to the complementary connector, wherein the bus switch is configured to close and electrically couple the

bus to the peripheral interface responsive to coupling the portable computer to the docking station, wherein the switch is closed during a predetermined turnaround cycle without suspending operations on the bus; and

wherein closing the bus switch during the predetermined turnaround cycle comprises initiating a first turnaround cycle, asserting a command, initiating a second turnaround cycle, and de-asserting the command, wherein the bus switch is closed simultaneously with the initiating the second turnaround cycle.

88. (New) The system as recited in claim 87, wherein the bus is a low pin count (LPC) bus.

89. (New) The system as recited in claim 87, wherein the docking interface chip is configured to receive a dock detect signal, wherein the dock detect signal is asserted responsive to coupling the docking connector to the complementary connector.

90. (New) The system as recited in claim 89, wherein the dock detect signal is de-asserted responsive to uncoupling the portable computer from the docking station.

91. (New) The system as recited in claim 89, wherein the docking interface includes a switch control circuit, wherein the switch control circuit is configured to operate the bus switch.

92. (New) The system as recited in claim 91, wherein the switch control circuit includes a translation circuit, wherein the translation circuit is configured to receive and translate commands for operating the bus switch.

93. (New) The system as recited in claim 87, wherein the bus switch is a low on-resistance bi-directional switch.

94. (New) The system as recited in claim 87, wherein a power-up sequence is initiated in the docking station responsive to coupling the portable computer to the docking station.

95. (New) The system as recited in claim 87, wherein the portable computer includes a clock driver chip, wherein the clock driver chip includes a plurality of outputs for driving clock signals.

96. (New) The system as recited in claim 95, wherein the clock driver chip is configured to drive a clock signal to the docking station responsive to coupling the portable computer to the docking station.